

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 1-7 remain in the application. Claim 1 has been amended. Claims 8-9 have been withdrawn.

In the third paragraph on page 2 of the above-mentioned Office action, claims 1-2 and 4-5 have been rejected as being anticipated by Patel (US Pat. No. 4,885,121) under 35 U.S.C. § 102(b).

The rejection has been noted and claim 1 has been amended in an effort to even more clearly define the invention of the instant application.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claim 1 calls for, inter alia:

placing a first, high-strength material into one single shaping mold;

introducing a second material having a lesser strength than the first material into the mold with a process selected from the group consisting of casting and injection molding when the first material has a given amount of residual heat; and

bonding the first and second materials to a composite by utilizing the given amount of residual heat of the first material, producing the plastic component with a strength higher than said first material. (Emphasis added.)

Patel discloses a continuous method of making a dual durometer self-locking and self-sealing plug. However, the method disclosed by Patel is not a method wherein the composite is produced in one single shaping mold. Rather, the method according to Patel is a method for mating-multi-cavity molds (see column 3, lines 56-62). The method according to Patel is described in detail in column 10, line 43 to column 11, line 39. As is also described in column 10, lines 22-42 of Patel, it is necessary that the upper mold halves 72 A and 74 A be applied with different counter halves 72 and 74 so that two different molds are formed in order to produce a composite body. Although the two mold halves 72 and 74 are disposed on one carrier, the fact remains that the production method according to Patel uses two molds which merely share a common cover.

Therefore, Patel does not disclose producing a high strength workpiece in one single mold, in which two plastic materials of different strengths are injected into the one single mold one after the other.

In addition, Patel discloses a method for producing a composite body formed of two regions, each of which has substantially the same characteristics of the plastic material from which it is formed. However, the method according to the invention of the instant application produces a composite body, the joint characteristic of which is changed through the production process so that a high strength composite body is formed, the strength of which is higher than the harder one of the two plastic materials.

Clearly, Patel does not show "placing a first, high-strength material into one single shaping mold; introducing a second material having a lesser strength than the first material into the mold with a process selected from the group consisting of casting and injection molding when the first material has a given amount of residual heat; and bonding the first and second materials to a composite by utilizing the given amount of residual heat of the first material, producing the plastic component with a strength higher than said first material", as recited in claim 1 of the instant application.

Claim 1 is, therefore, believed to be patentable over Patel and since claims 2 and 4-5 are dependent on claim 1, they are believed to be patentable as well.

In addition, with regard to claim 4, although Patel describes that the component from the harder plastic material is inserted in the second mold because the component sticks on the cover of the mold, it is not obvious for a person skilled in that art to insert a separate prefabricated component of material with a higher strength and a residual heat in the one single mold so that a composite body can be produced after adding the material with a lesser strength.

With regard to claim 5, Patel does not disclose the use of ribbing in the component with higher strength. In Patel, the composite body is a sealing component for sealing mounting holes. The ridge portion 30 as shown in Fig. 2 of Patel is a segment for forming a differentiation in the composite body in order to lock the composite body in a mounting hole. In the invention of the instant application, only the component with higher strength has ribbing in order to be filled up by the material with lesser strength and to produce a better connection between the two components and a lighter weight.

In the last paragraph on page 3 of the above-mentioned Office action, claim 3 has been rejected as being unpatentable over Patel in view of Bertschi et al. (US Pat. No. 5,651,998) under 35 U.S.C. § 103(a).

As discussed above, claim 1 is believed to be patentable over the art. Since claim 3 is dependent on claim 1, it is believed to be patentable as well.

In addition, Bertschi et al. disclose a method in which two mold regions are separated by a slide when the first material is placed in the mold and the slide is removed before a second material is brought into the mold. It is not obvious for a person skilled in the art to combine the feature of Bertschi et al. with the method disclosed by Patel. The fact that the method of Patel uses different molds to produce the composite body would not give a person skilled in the art any hint or motivation to combine the feature of Bertschi et al., namely separating the different regions of one mold through a slide, with the method of Patel. A person skilled in the art would not face the object or problem of separating different regions of one mold from seeing the Patel method. A combination of Patel and Bertschi et al. would only be meaningful after one obtained the knowledge of the method of the invention of the instant application, namely a method to form the composite body in one enclosed mold.

In the second paragraph on page 4 of the above-mentioned

Office action, claims 6-7 have been rejected as being unpatentable over Patel in view of Hara et al. (US Pat. No. 5,277,865) under 35 U.S.C. § 103(a).

As discussed above, claim 1 is believed to be patentable over the art. Since claims 6-7 are ultimately dependent on claim 1, they are believed to be patentable as well.

In addition, although Hara et al. disclose a method to produce a cavity in a plastic part, Hara et al. use movable mold halves similar as Patel. The prerequisite of the method of Hara et al. is that the two mold halves are moved away from one another during the forming of the cavity (see column 1, line 66 to column 2, line 30). A combination of Hara et al. and Patel would not lead to the invention of the instant application. An enclosed mold is not obvious over a combination of Patel with Hara et al. because the method according to Hara et al. uses movable mold halves to form the cavity in the plastic material.

In view of the foregoing, reconsideration and allowance of claims 1-7 are solicited.

Applic. No.: 09/901,430
Amdt. Dated November 6, 2003
Reply to Office action of August 6, 2003

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made. Please charge any fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

Respectfully submitted,

LAURENCE A. GREENBERG
REG. NO. 29,308



For Applicant

YC:cgm

November 6, 2003

Lerner and Greenberg, P.A.
Post Office Box 2480
Hollywood, FL 33022-2480
Tel: (954) 925-1100
Fax: (954) 925-1101